The News from Studies In Work

Volume 1 issue four July 2014 Page one

SPATEX STAYS IN COVENTRY

Following the success of the move from Brighton to the Ricoh Stadium, Coventry in 2014, it was a 'no brainer' to stay there for the foreseeable future. The ISPE workshops experienced their best attendance with many industry gurus giving up their time to deliver thought provoking seminars. These sessions offered certification, now an essential requisite, showing that delegates are fulfilling career progression development. For more details, see page 10

In this months magazine:

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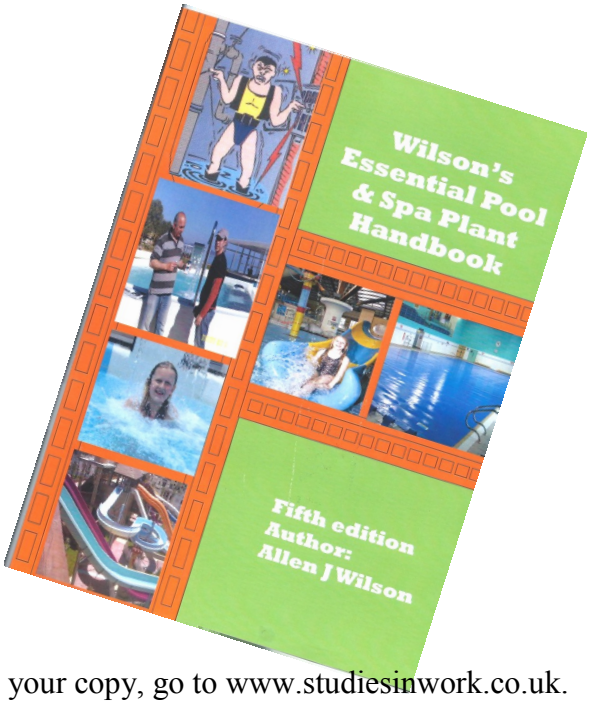
FIFTH EDITION FLIES OFF THE SHELF

Wilson's updated manual in its first fortnight has sold in excess of fifty copies.

Courses using the manual include GL1, Gloucester leisure centre who waited for the new edition to revalidate their staff's Pool & Spa Plant . Operations manager, Sally Barnes said following the course *'the book is in an easy read format and is also written in an entertaining manner that holds your attention'*. It was also used on courses in Cyprus, Colchester and Shrewsbury . For an opportunity to get yourself a free copy, turn to page 12.



To get your copy, go to www.studiesinwork.co.uk. Unbelievably still only £23.95 inc. p & p

HAD POOLTESTER, WILL TRAVEL

So Thursday teatime just as 'The Simpsons' is starting, the phone rings.
"Can you come to Cyprus as soon as possible and write our procedures, we have a water slide complex opening Sunday and our insurers say we must have them in place by then".
"I can come next Wednesday" I offer them, checking my diary.
"No good! We need you to come tomorrow"
"I definitely can't come tomorrow, it's my silver wedding anniversary on Saturday and I'm not leaving my wife, she would kill me!" I lied.
"Bring your wife, we will pay for her flight as well".
Result or what!
So we negotiate a fee, just a pittance really and we are on our way.
So the following day we trek up to Gatport Airwick and shoehorn ourselves onto an Easyjet flight bound for Cyprus. Have you ever had the feeling that you are being stalked? Well I have identified my personal stalker who is only about three years old with an inane grin and invariably sits behind me on my flights (now fifty-one flights since April last year, but who's counting). Here he proceeds to use the back of my seat and his feet to hammer out Ringo Starr drum impressions, depriving me of any opportunity to sleep. Fortunately I have (well in reality, Lily) downloaded the third series of 'The Sopranos' onto my tablet so at least I had something to watch during the five hours of the flight. I particularly like the character that James Gandolfino portrays. I will eventually get to watch all of the eight serieses (or whatever the plural of series is), and I'm sure James Gandolfino will continue to excel in this role. Now I don't know what will happen to James, so if you see me, don't tell me as it might spoil the end for me.
A stretched Mercedes greets us (metaphorically that is) outside of the airport and conveys us in style to a Superlative hotel where we are allocated a suite overlooking the Med.
The next couple of days are spent writing procedures and I just hate typing on a laptop as it seems that half way through a sentence (I can't look both at the screen and the keyboard) the cursor has somehow managed to leap back to the middle of the last sentence, resulting in complete and utter gibberish. Whenever this happens I promise myself I will get a speech recognition programme to type as I talk. I'm not sure how it will get on with what someone recently described as my farmer's boy accent. It would be interesting to see what it would make of 'furtilizer', combined arvestur or even kalsium ipurklorite.
So with the Normal operating Procedures (NOP) and the Emergency Action Plans (EAP) Risk & COSHH assessments all written I then take their staff through ISPE endorsed training and that's it, I think.
"Oh no its not", their boss tells me, *"what about a drill!"* Already I can see the lifeguards grinning animatedly at the thought. They've guessed it, someone in the pool, pretending to drown. That's gonna be meat and drink to them, an absolute doddle. In the back of my mind a perverse thought occurred to me.
Next a plant room inspection and for a change they have automatic dosing, albeit a redox system. This is one of the few pools that I have visited around the med in the last couple of years that did not rely on manual dosing. Sadly there was not a flocculation system. Frighteningly there was cal hypo stacked alongside trichlor and Dichlor, the potential for an explosion high. By now the boss had bartered with me for my photometer, TDS meter and infra red thermometer, making more room in my suitcase for cheap cigarettes for my mates up at the rugby club. The pool plant attendant is overjoyed as he is now able to measure combined chlorine and cyanuric acid, both substances that he had never ever heard of until two hours ago on the course.

So following a water testing session and later that day, together with the group engineer and the architect we climb to the top of the slide ride tower. Here I pretend to have a heart attack, an Oscar winning performance even though I say so myself. I now recall the reason, why four years ago, I had purchased a bungalow. The two lifeguards stared at me, initially asking, *"are you joking?"* but after climbing in excess of forty steps I obviously looked the part. In fairness to them they reacted well and within one minute the senior lifeguard arrived, panting healthily, complete with a defib machine. By then I had got my second wind and was able to explain to them I was conducting a drill and turned down, much to their disgust, the relatively unique opportunity of being defibrillated . I asked how long it would take for the emergency services to get to site and was told, *"fifteen to twenty minutes"*. I then asked for their procedures to sustain life for that period and whether they would leave me up there or get me down. One of the lifeguards said he would keep me where I was, keep me warm (no problems there, it was 27^{O}C) and await the paramedics to make the decision on whether or not to move me. The head Honcho lifeguard who had had to run to get to me and was still somewhat out of breath, suggested with just the slightest hint of malevolent humour, that he would get me down to ground level by utilising the slide. This was in fact an option that should not be discounted, especially in indoor facilities that sometimes had spiral staircases. So after five days of balmy weather it was back to a cold wet miserable United Kingdom and of course you, my loyal reader.

So back home and hopefully it will be quiet, allowing me to do some writing, but no chance and off to more romantic places; Manchester, Colchester, Gloucester (a real bonus) Hannover and a legionnaires training course in the Mediterranean.

It is common that when I arrive in a country that I will be met by a person holding a piece of paper with a perverse spelling of my name , such as Nigeria where it read 'ALIEN WILSON' but this place certainly took the award when I spied a guy holding a piece of A4 with just the word LEGIONELLA' written on it. Sadly my camera was packed so I was unable to get a picture of it being proudly displayed, although I did confiscate the sign.

For Legionnaires disease awareness training, contact Allen Wilson at Studies In Work
Tel 01452 417533 Mobile 07885 615547
Email info@studiesinwork.co.uk
Or visit our website at www.studiesinwork.co.uk

Storm damaged Leisure Centre to re-open.

Portsmouth's Pyramids Leisure centre flooded and damaged by the February storms will open it s doors in August this year.

The plant room that was flooded have had major refurbishments to it. A spokesman for BH Live who operate the centre stated, *"The centre sustained over half a metre of sea water flooding and storm damage affecting the fabric of the building, electrical and plant equipment. We have been working with specialist contractors to reinstate power and services before repair and refurbishment work could begin. Good progress has already been made with the rebuilding of the plant room and the surrounding areas".* He added, *"The swimming pool reception will have a brand new Terrace Café with seating area and accessible facilities. A multi-purpose room will be available for fitness classes and events and swimmers will see improvements in the pool area. Colour changing lighting will create an improved ambience especially during evening swim sessions and new pumps will provide a speedier flume experience for all. There will also be a deep clean throughout the centre once all of the building works have completed. These works will improve the overall customer experience and lead to greater efficiency and reliability."*

The leisure centre, which is owned by Portsmouth City Council, was taken over by BH live last year after it came under threat of demolition by the authority amid spending cuts.

"Who are the Alliance of Professional Leisure Trainers?"

The Alliance of Professional Leisure Trainers (APLT) is a professional body which focuses entirely on providing professional recognition for trainers within the active leisure industry. The rationale for forming such an alliance is based upon the most fundamental, yet most frequently overlooked fact, that it is most frequently the quality of the trainer that has the greatest impact upon the learning experience of the attendees on courses, If a trainer cannot motivate and excite an interest in their subject, and contextualise what they deliver to the real, everyday world of leisure management, then it is unlikely that their training efforts will change behaviours to develop and improve performance back in the workplace.

Evidence drawn from across many years of vocational and professional training suggests that overwhelmingly, leisure managers (and aspiring managers) who attend training courses, value the experience of their trainers, especially where they can use this to draw out the shared experiences of those they are helping to train. That is why the Alliance places as much importance upon the Trainer's industry specific skills, as it does their academic attainments. In effect, the Alliance of Professional Trainers is an elite academy of industry experts who can communicate knowledge and good practice, and seek to change attitudes and improve the skills that help leisure professionals become more effective in their workplaces. Only those trainers that conform to the highest standards will be accepted into the Alliance. These standards will be assessed by a panel of the UK's leading leisure trainers and will reflect specific benchmarks of professionalism in terms of:

- Relevant Industry experience
- Relevant Managerial experience
- Teaching experience
- Relevant qualifications
- Rigour and relevance of the programmes they deliver
- Demonstrating a commitment to Continuing Professional Development

Membership of the Alliance would provide recognition to members as professional trainers within the industry, and indirectly, recognition of the programmes that they deliver;

Serious about training? Why not submit your application today and join the elite!!

You can contact us today at the following:

info@professionalleisuretrainers.com
www.professionalleisuretrainers.com
james@johnsontraining.co.uk

Allen Says, "I'm proud to be a member of such an illustrious group".

Contractor fined £150,000 following sub standard asbestos removal at former school

A company purporting to be a specialist asbestos removal company has been fined with costs, £150,000 after it exposed workers to dangerous asbestos fibres during the demolition of a former school.
The company was found guilty of eight breaches of asbestos regulations after they inadequately failed to safeguard workers against the risks posed by asbestos.

Angus Group Ltd did not properly manage the removal of asbestos-containing materials at the demolition of a former Infants School in Lincoln.
The HSE carried out an investigation after inspectors visited the school and discovered a catalogue of safety breaches.
Safety breaches included:

- the exact location of asbestos material wasn't identified and the work only took one day to complete rather than the planned seven;
- risk assessments were too generic;
- enclosures, segregation and containment measures were inadequate;
- no detailed planning;
- routes through the buildings were not clearly identified
- employees did not receive specific
- instruction;
- the plan did not refer to the original asbestos survey;
- the plan and risk assessment for the asbestos removal work in the building's boiler house was found to be confused;
- until the HSE issued a prohibition notice the asbestos decontamination unit had not been operational.

The site was being demolished after the school buildings were replaced by a new school. Prior to the work commencing, an asbestos survey identified the areas in the building containing asbestos, and recommended the methods to ensure safe removal.
This survey identified that the end walls of the school's main hall were covered in a spray-applied coating of asbestos, and should therefore be removed by a licensed contractor under safe, controlled conditions. These recommendations were ignored by Angus Group Ltd. The asbestos spray coating on the main hall walls was removed using power tools without any screens, enclosures or air extraction systems in place. Asbestos-containing material was bagged and carried to a skip outside. Angus Group Ltd notified the main contractors that the asbestos removal work on the main hall was finished, but when the project agents and main contractors visited the next day, they found the hall covered in dust and patches of asbestos material still on the wall.
On inspection it was found that fifteen of the 17 samples taken in and around the hall proved positive for asbestos. A later analysis, which included other parts of the building, found asbestos fibres in 15 of 34 samples, indicating asbestos had contaminated other areas of the building.
Speaking after the hearing, an HSE inspector stated:
"Building owners and contractors have a duty to ensure they protect their workers, and any site personnel, from the well-known dangers of exposure to asbestos. Angus Group Ltd is an experienced licensed contractor, and was fully aware of all the hazards and all its responsibilities to ensure safety at all times.
It is deplorable a company that should know better, failed to properly manage the dangers of this hidden killer."

DO YOU HAVE ASBESTOS ON YOUR PREMISES?
If so, you should have had an asbestos survey carried out
This will reveal a need for adequate training in Asbestos awareness
Studies In Work can provide ISPE endorsed training

The half day training seminar covers:

What is asbestos History The law The Duty holder and the responsible person
Installations that present a risk Control measures: frequency & action: what you should be doing
Monitoring and recording Building inspection

Just contact Allen Wilson at Studies In Work H&S Consultants
Email info@studiesinwork.co.uk Mob 07885 615547

British boy found unconscious on bottom of cruise ship's swimming pool.

A six-year-old British boy is in a serious condition in a French hospital after being found unconscious in a cruise ship' swimming pool. The child's heart had stopped when he was found, stated a port official. The child was travelling with his parents on the cruise liner, Independence of the Seas.

The captain told passengers that the alarm had been raised by other children in the pool. "*The child was pulled out by adult passengers, two of whom had medical training and started a recovery immediately.*"

Rescue services in France were alerted to the incident shortly before 1300 BST. A navy helicopter was scrambled and arrived at 13.40 BST. A spokesman for the maritime prefecture in Brest, north-west France, stated *"The child was found in a state of cardio-respiratory arrest at the bottom of the ship's pool."* He was taken by helicopter to hospital in Brest, north west France.

The spokesman added *"We've never had a case of a boy drowning in a pool on a ship before, but we have, unfortunately, a lot of experience of that happening in pool on land and we know that it can happen to anyone, anywhere".* Wilson says, " **Yes anywhere, where inadequate measures have been taken to avoid drowning!** *Was this child alone in this pool? where were his parents? Was the pool lifeguarded? Only last month, I said* ***'nobody loves your child as much as you do, always accompany them into the water.***

*Contrary to what many people believe, a '****this pool is not lifeguarded*** *'or* ***'swim at your own risk'*** *sign, is not legally adequate or sufficient to exempt the cruise ship from liability. With this experience it would indicate a need for lifeguarding and would it cost that much, considering this cruise ship is capable of carrying up to 3,600 passengers? I would like to see their risk assessments and procedures! From reading this I would venture that this tragic incident was entirely preventable".*

At the time of going to press, The News have been unable to ascertain the condition of the child.

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FOR ALL YOUR POOL LIFEGUARDING AND FIRST AID TRAINING

Spa Maintenance: What to do when it all goes wrong. Philip Barlow MISPE
Taken from his discussion at the last ISPE seminar

My name is Philip Barlow and I have been in the pool industry for 15 years as a pool and spa engineer and run my own company in Kent, now in to our fifth season dealing with pools and spa alike, but today I would like to focus on the acrylic portable garden type spa, as these are the most common. The garden spa has become more and more popular over recent years, a lot of it due to the ever decreasing size of people's gardens, that and the fact most people are not that interested in a pool for exercise and would rather lounge around in hot bubbling water with a cold drink & relax…… a philosophy I can fully get behind .

That being said, spas are a high tech and complicated piece of equipment and as spas have been around quite a long time now we are experiencing an increased amount of 'call outs' to repair spas and would like to talk about what to do when it all goes wrong. Now this talk is aimed at similar companies that carry out this kind of work and outline a good procedure of dealing with a 'spa call out' to make the job go as smooth as possible. Also the kind of tools, equipment and chemicals needed plus the type of common and some uncommon problems that you or your engineers will be fixing.

One of the most important parts of a 'call out' is the initial phone call - If you get the right information from the client it will make the job easier and more profitable – as they say *'for warned is for armed'*

The key part of this info is:

The Make and Model of the spa – a fairly obvious question but more importantly do they have the correct owner's manual for their spa?. – This is important because if they haven't you will be able to access one beforehand either as a download or direct from the manufacturer. – As you know if you have your head buried under a tub and you need info you can bet you won't have service on your phone – if they don't know what the make of tub is they can always send you a photo for reference - so having a manual is crucial.

The next point is the location – find out how the tub is installed – is it free from obstacles - can you work around it – is it pushed against a wall or two where it may take 2 engineers to move it if needed – and worst of all is it sunk into a patio or decking – knowing this information will help you price and undertake the job easier.

You will also need to ask is the tub empty or full. – Because if you get a 'call out' to look for a leak in a spa and arrive to an empty tub you are either in for a long wait while the tub is re-filled or you will have to revisit –

Some jobs require the tub to be empty, but I'll come to that later –

Now we do a lot of 'call outs' when the clients are at work – as most tubs are in the garden and accessible - they may leave a side gate unlocked for you – but you need to know if you are able to access the electrical supply and not just the isolator switch because if it is a problem where the tub is tripping out you may have to trip it out a few times to isolate the problem- and if you cannot re-set the circuit breaker it may be a short call out – so you may have to arrange for the client to be there as well to access the electrics.

And most importantly of all, what the actual problem is, –try and get as much info as possible – if it's leaking – how much over how long?

Is it more when tub is running than when it is off?

If it's tripping out – is it straight away or only after a certain period of time?

All this information means you should be able to diagnose onsite a lot quicker and easier.

There are also a few problems they may describe that you know is easy to do that only takes a few minutes that the client could easily do themselves– Problems such as a low filter flow due to dirty filters (yes some people don't know they need to be cleaned!).

Is there no circulation because the tub has recently been drained, refilled, and the pumps are air locked and the air bleeds need opening to vent the trapped air?

Are some jets not working because someone has moved the position of a diverter valve that they do not know about?

I know it may seem like doing yourself out of a call out – but in my experience most clients appreciate this – especially if this sorts out the problem easily.

They will know you could have if you wanted to charge for a 'call out' for a five minute job and they will be more inclined to use your company in the future.

Now after the initial phone call you will be going to site …….There are specialised tools and equipment more dedicated to spas…….. Having these tools and equipment at your disposal will also make for an easier job.

Things like;

A Water Bowser if you do need to empty the tub – rather than dumping the water to waste – This is essential if you do a repair and want to quickly fill the spa again and check your work. Personally I find a cheap 8 ft quick up pool is perfect and not a bulky item to carry on the van.

Submersible Pump with Hoses – essential for draining a tub quickly

A Wet 'n' Dry Vacuum Cleaner for removing water from those stubborn and hard to reach areas – and for cleaning up once the job is complete – There is nothing clients hate more than a tradesman leaving a mess behind.

A Multi Tool – for those of you who aren't aware of this tool it is probably one of the tools I use most – it's a vibrating cutting edge tool allowing you to plunge cut straight through pipe work where access is restricted and a hacksaw isn't possible to use.

A Chain Spanner or Rubber Boa – are also a must in the hard to reach areas – you may have to tighten a pump union which is behind the air blower which in turn is behind the control panel and a set of grips just isn't possible.

Another essential is a good quality Thermometer – just so as you can accurately confirm that the temperature sensor probes are working.

A good quality Multimeter is also essential preferably one that can test Microfarads - this is useful for checking how good the capacitors on the pump are
They are good for checking if fuses have blown and if you can check resistance through the heater elements to determine if they have failed or not (generally on a 2-3kw element you would expect to get in the region of 18 – 21 ohms – if it is considerably higher this would indicate that the element has failed) and in some cases may need to use an insulation tester for a more effective answer.

Microfarads are a unit of capacitance and ***ohms*** are a unit of resistance (microfarad =µF, or less correctly *uF)*
And along with all the general tools it is good practice to put a spa spares box together - this should contain a variety of general spares for most common problems.
Pump Capacitors of varying Microfarads ranging from 5 – 20 Microfarads.
Fuses – especially the larger SC25's and SC30's
3kw Elements – a large proportion of spas use the same size heater
Pressure Switches
Temperature Sensors
Flow Sensors for M7 Boards
Gasket Material – if you need to make up a custom fit gasket - this can be purchased in meter squared sheets
Tubes of silicone for sealing fittings or threads
A Stock of Pipe Work and Fittings of varying sizes
A Fiberglass Repair Kit – these can be purchased from Halfords at little cost – and can be useful for repairing cracked shells.
A Spa Catalogue for reference, pricing and ordering spares
A Good Pair of Gloves and Hand Sanitiser because the underneath of a spa can be contaminated with stagnant water, vermin excrement – so a good scrub up after the job is down is always advisable.
A Good Spot Light – for looking around underneath the tub

Now onto two of the most common problem scenarios
Scenario No 1: No Power to the Spa
The first thing to do which may seem obvious is to check you are getting power to the spa control panel using your multi-meter: If you are not getting power to the spa you will have to work back and check any isolator switches, junction boxes and circuit breakers – it may be as simple as re-setting the breaker.
Once power has been restored to the tub you can now test the control panel for any fuses as this can be an easy short cut to finding any problems – if you find any blown fuses replace it with a new one with the same amp rating. Once this has been done the spa should now work as normal.
But for instance if you check the terminals to the spa heating element and you are not getting any power to it check that the thermostat is set above the actual temperature of the spa water temperature. Once this is done and the heater is still not working check that the filtration pump is running?
If it's not running, but making a humming noise this will most likely be the capacitor or in layman's terms, it's a bit like a car starter motor. You can remove the capacitor and check the Microfarads to see if it has dropped in rating i.e. if it's a 16 mf (uf) and you only get a reading of 13 then replace the capacitor with new 16 uf and try the pump again. If the pump fires up check to see if the bearings on the pump sound noisy or squealing - if the bearings are on their way out then you will have to remove the pump and have it serviced or sometimes it's more cost effective to replace with a new one.
Once you are happy that the pump is running as it should, use your multi meter to check the voltage across the element terminals, if you now have 240v on one side of the element that should have solved the problem – and the proof will be the spa heating up.
If it still isn't working the next part to check is the pressure switch or flow switch – these are usually a device in the circulation line which is an either open or closed circuit - if for instance the circulation pump is running ok with good pressure and the switch still has an open circuit – it has failed or needs adjusting – they are usually factory set switches and usually for the price of them it's safer just to replace it with a new one.
Once this is done - check the terminals on the elements for 240v - it should now be working.
Scenario No 2: Leaking Spa
Normally with a leaking tub there are a few usual suspect areas –
Start by checking in the pump and control panel bay –
Mechanical shaft seals on pumps are prone to leaking – I generally remove the pump and have it serviced with a new seal/capacitor and bearings if cost effective.
Check all unions on the pumps and heater it may be as simple as worn or perished gaskets – replace any worn items and check when spa is running to make sure the problem is solved.
If there is nothing obvious in the control bay but there are signs of leaked water in the base then it's best to remove all the spa panels and check all pipe work and jet fittings – a good indicator of a leak is a buildup of scale around any leaking area.
Once found you will normally have to drain the spa and replace any failed pipe work or remove the jet fitting and reseal it.
In more extreme cases where the spa has been placed on an uneven surface and the weight of the water has cracked the shell the only way to repair it may be to put a fiberglass patch on and sand it down.

Once the tub has been placed on a suitable base – no point repairing if it's only going to crack again!
Another scenario / problem that's quite unusual , I had a call out to a spa where the pump wasn't circulating very well and after a few preliminary checks I thought that the pump impeller might be damaged or more likely blocked –
When I removed the pump the impeller was jammed full of little bits of wood some insulation material, leaves and half eaten cobnuts from a nearby tree. Talking further with the client is when he told me when he drains the spa for the winter he removes the pump into the dry garage!
Good practice but maybe block the pipes up on the spa so no rodents use the pipework as a rota stack.
Also on the subject of vermin living under spas – which must be the ideal habitat – nice dry and warm plenty of insulation to make bedding out of and foam to tunnel around in.
Unfortunately they do like to chew through cables and leave droppings everywhere which is quite unpleasant.
Now a lot of clients first response is to put poison down which is a bad idea as the rodentd eats the poison and dies under the spa and starts to decompose, as you can imagine not the best smell in the world and guess where the air blower that gives the nice spa bubbles is sucking that air from – That's right under the spa!!
The best way of dealing with it is to make the cabinet vermin proof but still allow ventilation for pumps and blower.
Touch Pads are another source of problems but are generally easy to diagnose – if it's not working and no display on it and the old trick of unplugging and plugging it back in again on the circuit board doesn't work this will mean replacing the unit as these are generally sealed units and cannot be repaired – if they are showing an error code refer to the user manual to diagnose the fault , two of the most likely will be the display flashing FL or FLO and SN with a number.
The FL or FLO is letting you know there is a circulation low flow which will be dirty filters a failed circ pump or a problem with the pressure switch.
The SN with a number is telling you there is a sensor fault and the number will indicate which sensor it is – be it a flow sensor – temperature sensor – high temperature stat or a water level sensor all of which would need replacing.

Check List of Tools and Spa Spares for Spa Engineer

A Water Bowser if you do need to empty the tub – rather than dumping the water to waste – This is essential if you do a repair and want to quickly fill the spa again and check your work. Personally I find a cheap 8 ft quick up pool is perfect and not a bulky item to carry on the van. essential for draining a tub quickly.
Submersible Pump with Hoses essential for draining a tub quickly.
A Wet 'n' Dry Vacuum Cleaner for removing water from those stubborn and hard to reach areas – and for cleaning up once the job is complete – There is nothing clients hate more than a tradesman leaving a mess behind.
A Multi Tool a vibrating cutting edge tool allowing you to plunge cut straight through pipe work where access is restricted and a hacksaw isn't possible to use.
A Chain Spanner or Rubber Boa – are also a must in the hard to reach areas – you may have to tighten a pump union which is behind the air blower which in turn is behind the control panel and a set of grips just isn't possible.
A Good Quality Thermometer – just so as you can accurately confirm that the temperature sensor probes are working.
A Good Quality Multimeter is also essential preferably one that can test Microfarads - this is useful for checking how good the capacitors on the pump are **–** They are good for checking if fuses have blown and if you can check resistance through the heater elements to determine if they have failed or not (generally on a 2-3kw element you would expect to get in the region of 18 – 21 ohms – if it is considerably higher this would indicate that the element has failed) and in some cases may need to use an insulation tester for a more effective answer.
A Good Spot Light – essential for looking around underneath the tub

General Tools

Spa Spares Box - this should contain a variety of general spares for most common problems.
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Microfarads are a unit of capacitance and **ohms** are a unit of resistance **(**microfarad =µF, or less correctly uF).

Fuses – especially the larger SC25's and SC30's
3kw Elements – a large proportion of spas use the same size heater.
Pressure Switches
Temperature Sensors
Flow Sensors - M7 Boards
Gasket Material – should you need to make up a custom fit gasket - this can be purchased in metre squared sheets'
Tubes of silicone for sealing fittings or threads.
A Stock of Pipe Work and Fittings of varying sizes.
A Fiberglass Repair Kit – these can be purchased from Halfords or similar at little cost – and can be useful for repairing cracked shells.
A Spa Catalogue for reference, pricing and ordering spares

Phil Barlow of Phil Barlow Pools is available on 07876 593580

Note from Allen Wilson: I would not normally print articles of three pages, but this article was so informative, there was nothing I could justifiably leave out.

British holidaymaker drowned during a stag party in Spain.

Police divers retrieved the body of a 37 -year-old man out of the water just after dawn today in the upmarket resort of Puerto Banus.

He fell in the water at around 2am while partying with friends in the port – southwest of Marbella on the Costa Del Sol – but the alarm was not raised for more than half an hour. Firefighters tried to recover the tragic holidaymaker's body but had to call in specialist Civil Guard divers after he slipped from their grasp. It also emerged that another man was being quizzed by police on suspicion of failing to aid a person in distress over the incident. Wilson comments, *"If you are going to drink, don't dive!"*

Spaserve owner and senior staff jailed

Three fleecers who robbed literally thousands of customers have been jailed for a total in excess of eight years. The company, Spaserve supplied faulty hot tubs or simply failed to deliver hot tubs, brought from them. The company went bust with debts approaching three million pounds while the partners lived a life of luxury. The case followed work by Trading Standards over up to eight years. During this period hundreds of people were robbed by Spaserve bringing our industry into

SPATEX: The Industry's headline act of 2015

SPATEX, the UK's number one pool and spa Exhibition is returning to the Jaguar Exhibition Hall at Coventry's Ricoh Arena. As it enters its 19th year, it promises to be BIGGER, BOLDER and BETTER than ever before. Read on to discover why you should set aside Sunday February 1st to Tuesday 3rd in your diaries now!

- **Source new products:** As a one-stop shop with over 100 companies, (all the major foreign and UK distributors, manufacturers, suppliers are there under one roof) there's no better shop window for finding the latest products and innovations for commercial and domestic wet leisure projects. If it's not at SPATEX, then you probably don't need it!
- **Meet the Industry's experts**: So much more than just an Exhibition, SPATEX provides real added value with its FREE technical ISPE workshops. The Industry speakers are all acknowledged experts in their fields and are there to give free and impartial advice. Certificates of Attendance are available. More seminars and technical workshops for the commercial sector are planned for 2015, details to be announced early autumn.
- **2015's best networking opportunity:** Mixing business with pleasure, exciting networking events are planned for each night of the Show. SPATEX has brokered some fantastic hotel deals so make a night of it.
- **Easy access** – the Ricoh Arena is easy to get to - just 500 yards off the M6 and within two hours commuting time of 75 per cent of the population, it offers 2000 free on-site car parking spaces.
- **Proven track record** - Now in its 19th year, SPATEX has experience and standing. To safeguard selling out of Exhibition space early, as happened this year, SPATEX 2015 is expanding into a second hall. A whole new SPATEX awaits you!

Visit the brand new SPATEX 2015 website for further information and pre-register to receive up-to-the-minute newslines with www.spatex.co.uk or contact Michele or Helen in the SPATEX office (T: 01264 358558, Helen@spatex.co.uk or Michele@spatex.co.uk).

Application for Membership

Please complete ALL *sections of this form in block capitals* AND *complete the CV overleaf.*

Name (in full) .....

Home Address .....

.....

Date of Birth ..... Home Telephone No. .....

(Please note none of the above details are given to any other person or organisation.)

Company Name.....

Company Address .....

.....

Position or Job Title and/or brief description .....

Date your employment with this company commenced .....

Company Telephone No. ..... Company Fax No. .....

Email Address ..... Mobile No.. .....
Please state whether you wish Institute correspondence, invoices, magazines etc.,
to be sent to you at your home address, or to your Company address.....

Please use the reverse of this form for your c.v., or attach it to this application form before asking two members (if known) to propose and second your application.
Proposed by.....Signed.....
(please print name)
Seconded by .....Signed .....
(please print name)
Completed application forms should be sent with c.v. (see over), and the Entrance Fee of £25, to **The Institute of Swimming Pool Engineers, P.O. Box 3083, Norwich, NR6 7YL.**
Please make cheques payable to I.S.P.E.
If your application is successful you will be advised of your allocated category and will be invoiced for your annual subscription, or that part due for the portion of the financial year remaining.
The financial year commences on 1st July and ends the following 30th June.
I declare that the information given on this application form and the accompanying c.v. is accurate, and hereby apply for membership of the Institute of Swimming Pool Engineers.
I enclose my Entrance Fee and will pay the required annual subscription as and when advised.

Signed.....Date .....

Please reproduce this page as necessary

CURRICULUM VITAE

Applications will be returned, unprocessed, if there is insufficient information given on the c.v. Please give full details of your employment and experience within the swimming pool industry (all sectors) or send separate documentation with this form.

Company name (most recent first)	Job title or position held	Date joined	Date left

WORK EXPERIENCE:

Please give details of your experience in the swimming pool industry, gained from the positions you have held. Please do not simply state, for example: "builder" or "service engineer" but do give a full description of your job title and the work you typically carry out. (*Applicants seeking full membership of the ISPE are required to demonstrate, via this c.v. at least seven years' experience within the pool industry in a technical capacity and/or a reasonably responsible position. Associate members must show at least three years' experience.*

QUALIFICATIONS AND COURSES ATTENDED: (including approx. date.) If none, state none

OTHER INFORMATION, which you may like to give in support of your application.

Quickly Remove Excess Physical Pollution on Pool Surface

By Adam Harries of Stockwell Associates

Excess physical pollution floating on the surface of the swimming pool can sometimes cause a problem for pool plant operators. The heavier physical pollution sinks to the bottom, but the lighter stuff remains floating around on the surface and looks extremely off-putting to pool users. This type pollution usually consists of things like; bits of float, plasters, hair etc. There will also be chemical pollution sitting on or around the surface of the pool, stuff like; biofilm, grease, sweat, mucus etc.

Modern pools are usually deck-level, meaning that the surface of the swimming pool is level with the deck of the pool surround. This system is very good at removing much of this pollution that resides on the surface, and within the top 150mm. because as the water laps over the edge of the pool, the pollution enters the drainage channel that goes around the perimeter of the pool.

In older pools, the deck-level system is not so common and instead, there may be a skimmer system or an over-flow channel. The skimmer system is not very good at removing pollution from the surface as the skimmers do not go around the entire perimeter of the pool like a deck-level drainage channel does, so not nearly enough surface water goes through the skimmer for this to be an effective system. The overflow channel system isn't any better because if the pool level is too high or too low, the swimming pool water will not flow over the channel in the correct way and you'll end up with what is known as a 'scum-line'. This pool plant operator has spent many hours in years gone by kneeling on a float scrubbing away to remove this scum-line and it's not an enviable task.

If you've got either of the older systems (overflow or skimmer), chances are that at some point you've experi-enced going on to poolside and seeing excess debris floating around on the surface with a public swim session about to commence in a few minutes. There is a quick and easy technique that you could use to quickly and eas-ily bring the swimming pool back to a reasonable standard of appearance in order to get you out of the immedi-ate situation. You'll need 2 people, a rope that is as long as the width of the pool and a few towels.

1. Drape the towels over the length of the rope while it's lying on the poolside.
2. Get one person on each side of the pool and slowly drag the rope down the length of the pool, from shallow to deep.

What you should see is the towels acting as a filter/barrier. It will catch some of the smaller particles in the mate-rial of the towels, while at the same time push some of the larger particles towards the deep end outlets. You will probably also need to get the nets out and spend a few minutes going over the pool surface and collecting any debris that remains.

After you've completed this process, which should only take a matter of minutes, you should see that the appearance of the swimming pool has been greatly improved.

I should stress that this technique is a ***'quick fix'*** only in order to get you out of trouble when you're under pressure. If any of the pool water test results are outside the correct parameters, then the appropriate action should be taken. But if all test results are OK, then this method should come in handy.

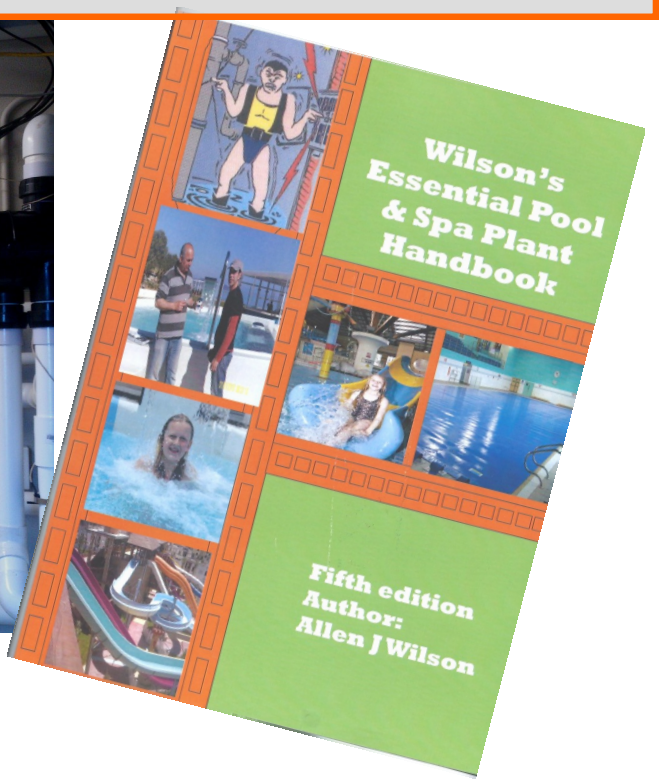
One other thing I will stress is that if you're experiencing this problem regularly, then this is an indication that there is an underlying problem somewhere. The pool plant operator should ask the following questions:

1. Are swimmers taking pre-swim showers?
2. Is the bathing load too high?
3. Is the correct circulation rate being achieved?
4. Is there enough fresh water going in (30 litres, per bather, per day)?
5. Are backwashes being carried out frequently enough?
6. Are the skimmer baskets being cleaned out frequently enough?
7. Are you using a coagulant, and are you dosing it correctly?
8. Is the skimmer valve closed, or being throttled back for any reason?

Wilson says; '*Thanks Adam. I also advocate putting a tennis ball into the skimmer as this will attract much of the grease. When they are dirty, wash them and/or replace them' I think, at present, Andy Murray may have some that he doesn't want'.*

It's competition time!

Grab the opportunity to win a signed copy of WILSON'S ESSENTIAL POOL & SPA PLANT HANDBOOK, Fifth edition. The prize will be awarded to the person/company providing a picture of the worst example of pool or spa plant pipework or even of a plant room. Participants can if they wish remain anonymous.
The competition will be judged by the editor, Allen Wilson, himself a failed plumber.



Above is entry #1, already setting a very high, or should that be low, standard.
The installer had obviously left his pipe clips at home that day along with his spirit level, but fortunately, although unprofessionally they had remembered their gaffa tape.

Pool & Spa Plant Operators course

These courses are site specific, as this is now recommended by the Pool Water treatment Advisory Group (PWTAG) and are endorsed by the Institute of Swimming Pool Engineers (ISPE)

One day introductory course
One day introduction Pollution and its removal, how pools and spas work, filtration flocculation & backwashing, Daily tasks, Water testing, Monitoring & interpretation of results and H&S.

Two day full course Control of all forms of Pollution, Circulation systems, filtration, flocculation and backwashing, electricity & ventilation, legionnaires disease, energy & utility conservation, risk assessment, the control of pH, balanced water, disinfection, testing and recording, reacting to results and H&S.
These courses can be held at your workplace or chosen pool site and is designed for up to 16 delegates.

Costs:
one day £400, two day £800 + £40 per delegate plus incurred travel expenses + VAT.

Register now if you would like to attend a course!

Just email Allen Wilson on info@studiesinwork.co.uk and we will contact you when we have training scheduled in your area

The rape and murder of two teenage girls in India

Lack of sanitation causes unpredictable problem

The dreadful rape and murder by hanging, of two teenage girls in the Uttar Pradesh state of India again proves how women have become the biggest victims of India's sanitation crisis. The girls were attacked when they went to a field to defecate. Between 50 and 65% of the population of India lack access to basic sanitation and are forced to defecate in open areas. Studies have indicated that women without toilets at home are vulnerable to sexual violence when travelling to and from public facilities or open fields, commonly in the early mornings or late at night.

This lack of basic facilities may have contributed to these deaths but the poor conditions emanating from lack of sanitation cause gastro-intestinal diseases that kills over two million people each year

How?

Diarrhoea occurs world-wide and causes 4% of all deaths and 5% of health loss to disability. It is most commonly caused by gastrointestinal infections which kill around 2.2 million people globally each year, mostly children in developing countries. Source of information World Health Organisation. (WHO).

Diarrhoea is a symptom of infection caused by a host of bacterial, viral and parasitic organisms most of which can be spread by contaminated water. It is more common when there is a shortage of clean water for drinking, cooking and cleaning and basic hygiene is important in prevention. Each year there are approximately 4 billion cases of diarrhoea worldwide. Source of information, again, World Health Organisation. (WHO).

What can be done

Where these problems are prevalent, build pools with communal washing & toilet facilities. Ensure that these pools are maintained safely and correctly and provide facilities where people can develop life-prolonging skills and habits

C'mon India ! you are now one of the most industrious countries in the world, start improving your welfare facilities!

Yes but what can we do?

I personally would travel out there and provide project management and ISPE Pool & Spa Plant Operational training and risk assessments on a expenses only basis.

I can't say fairer than that.

Picture from ATP via BBC news

News Flash! My pruef reader and grammer cheker has gone sick, basically leaving it in the hands of a failed plumber (me). So feel free to spot mistakes unless of course you have a life!

Freddy, my IT wizard sent me this and said
I should share it with you all.

Hi Allen
I notice that you do portable appliance testing training. We wish to put a new regime together rather than test everything but are unsure of what we can or cannot do.
I know we can limit tests of class 2, with class1 being annual however, this doesn't really work for us with the majority of our items being class1 and our class 2 items being the ones that the pupils 'use' the most. We have a multitude of offices which I would like to reduce, ideally to two yearly.
Is this something that you can help with?
Thank you,
Sara
Hi Sara
I would advocate that you train your testing staff to an operational level. This is the one day course we deliver for non - electricians. The HSE have stated in recent guidance in note INDG235, specifically for low risk environments and suggests that certain types of equipment - particularly Class 2 need not be tested.
It does none the less suggest that a regular formal visual inspection is performed. It should be noted that this is different to user checks and that this form of inspection requires a level of training and electrical knowledge to know what to look for and recognise hazards.
The Guidance suggests that Class I equipment together with mains cables, extension leads and battery charging equipment should be subject to periodic inspection and test. The periods would be determined by their use and the environment they are used in. The new Guidance states that: 'the person carrying out the test should not assess when the next test will be due as this decision should be made by you the Duty Holder on a risk assessment basis. This means that the 'Duty Holder' should also have adequate knowledge of the operations and processes involved.
Allen Wilson

PORTABLE APPLIANCE TESTING FOR NON ELECTRICIANS

Course aim:
To develop the knowledge and skills to safely inspect & test electrical portable appliances. To allow the students the opportunity to carry out visual checks, inspections and testing.

Syllabus

The legal requirements and guidance available
- **Classes of portable appliances**
- **Regularity of tests**
- **User checks**
- **Visual inspection & testing**
- **Monitoring and recording**

This course is limited to twelve delegates as it is very much 'hands on'.

Course duration: one day; 6 hours.

Examination is by the student demonstrating their competence in areas covered

Costs £395.00 each course + £20.00 per delegate plus incurred reasonable travel expenses + VAT
Studies In Work can supply a battery powered testing unit for an additional £300.00 + VAT.
Call us now on 01452 417533 or 07885 615547 or email; info@studiesinwork.co.uk

Letters to the editor

Dear Wilson
I am employed as a female pool attendant/lifeguard at my local leisure centre. Recently when working a late shift, I left my male senior pool attendant in the staff room filling in the following day's rota whilst I went to the plant room to top up the day tanks with sodium hypochlorite and sodium bisulphate.
As soon as I entered the plant room I noticed a strong smell of chlorine and following company protocol I immediately closed and locked the door and went to seek assistance from my senior colleague.
As I entered the staff room I was astounded to find my colleague wearing nothing but a blond wig my swimming costume and a pair of my 4" (100mm) Christian Louboutin (lookalike) high heeled boots.
He initially told me that he was going to a fancy dress party and was just trying on my outfit. He then broke down sobbing and told me his girlfriend had dumped him a month before and this was just part of his coping mechanism.
What do you advise I should do in this situation?
Thanking you in advance,
Anonymous

Dear Anonymous.
You were right to immediately lock and leave the plant room. The chlorinous odour may just have simply been a leaking injector However In a situation like this, follow your Emergency Action Plan (EAP) and contact the emergency services, advising them that they may face a chlorine gas generation and release. At the same time, remember, flight not fight and evacuate to a place of safety. Remember Cartridge respirators are not designed to fight chlorine Generation.
Regards,
Allen J Wilson

Thanks Allen
Always a good read…….as an OAP I still print things off and normally read them on long train journeys.
Tomorrow on the train from xxxxxxxxxxx to xxxxxx and onto xxxxxxxx on Friday. Two hotel audits and one with a new spa, nearly completed.
We have just returned from Longboat Key, Florida. We had the pool to ourselves, but wrote to the owner, after a "nose around". Plant room (shack) was all over the place, lizards leaping about near the chemicals and the single underwater light had become detached from the pool's wall.
As you said last month, we can never switch off!
Kind regards
John D
Thanks John
Allen

Hi Allen
Loving the magazine, keep up the good work, Keith
Thanks Keith,
Allen

Dear Allen
Any news on the horoscope yet? like in proper magazines! Erik Anorak

Dear Erik,
As I have said before, all contribution about pools and spas are welcome. Allen

Thanks Allen, received magazine today, very interesting articles, thanks again, David W
Thank you for your kind words, Allen